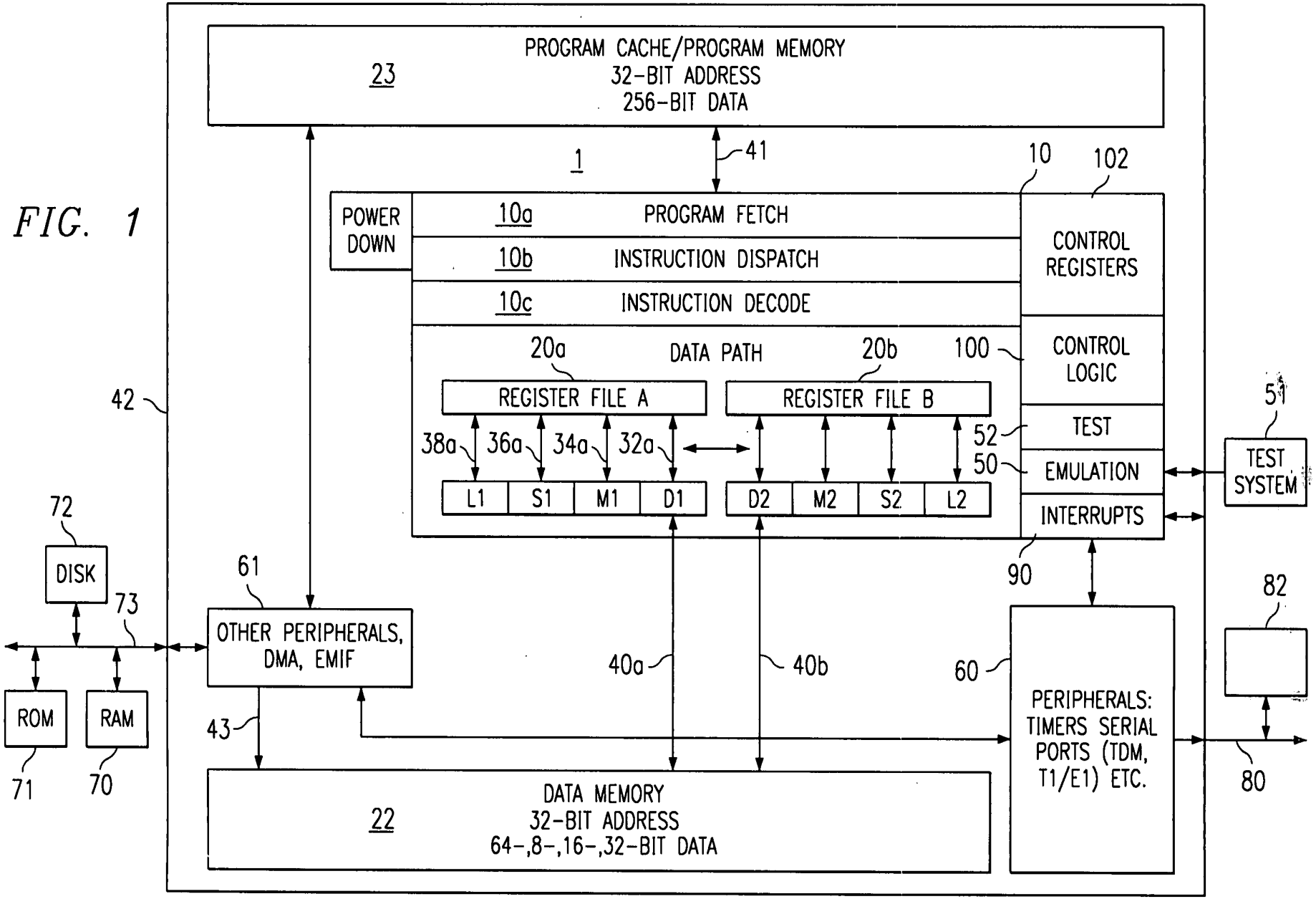
DATE OF MEDICAL

FIG. 1



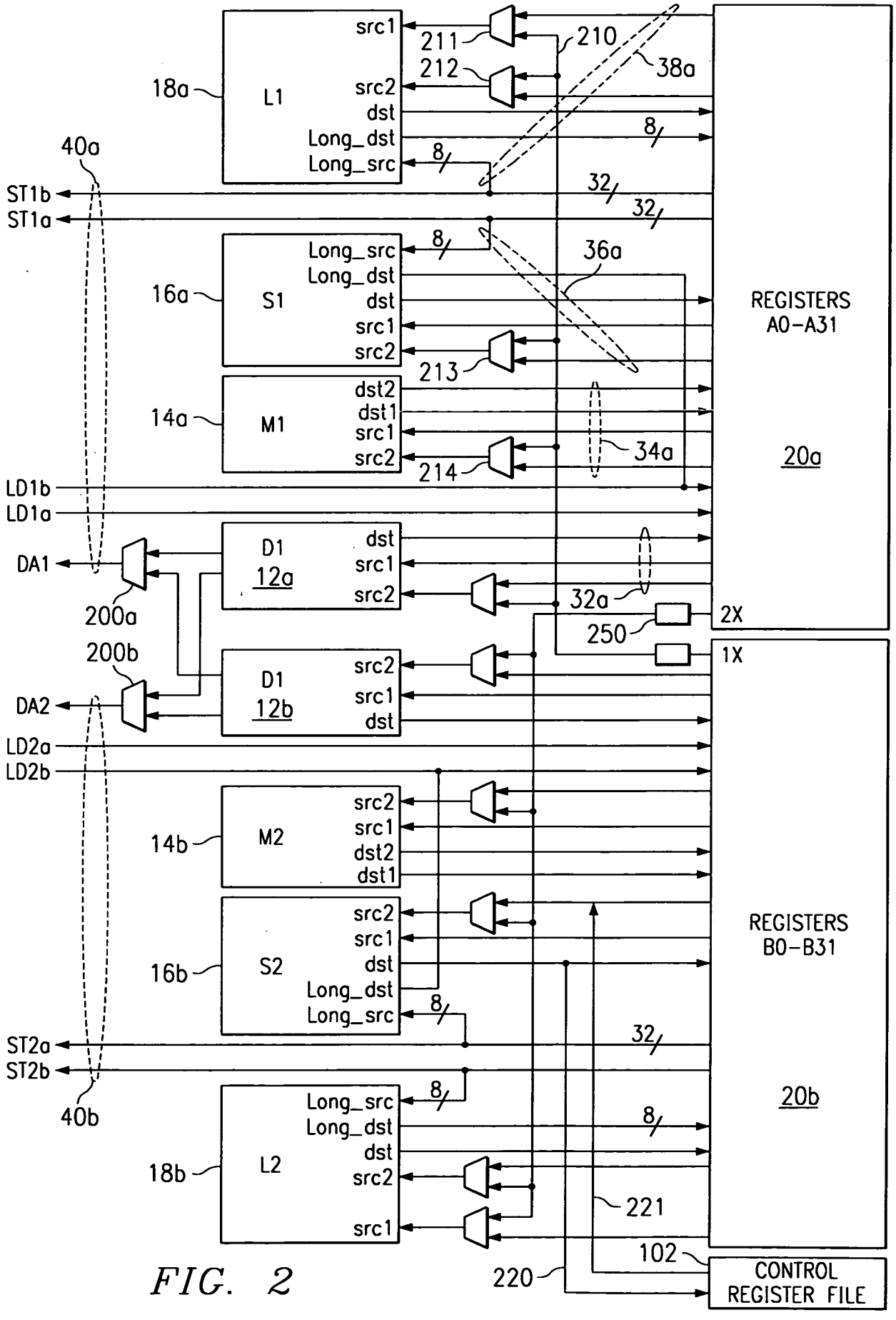

L1
18a
src1
src2
dst
Long_dst
Long_src
211
212
210
38a
8
40a
ST1b
ST1a
32
S1
16a
36a
213
M1
14a
dst2
dst1
34a
214
LD1b
LD1a
REGISTERS
A0-A31
20a
D1
12a
DA1
200a
32a
2X
250
1X
200b
D1
12b
DA2
LD2a
LD2b
M2
14b
S2
16b
REGISTERS
B0-B31
ST2a
ST2b
40b
L2
18b
20b
221
102
220
CONTROL
REGISTER FILE

FIG. 2

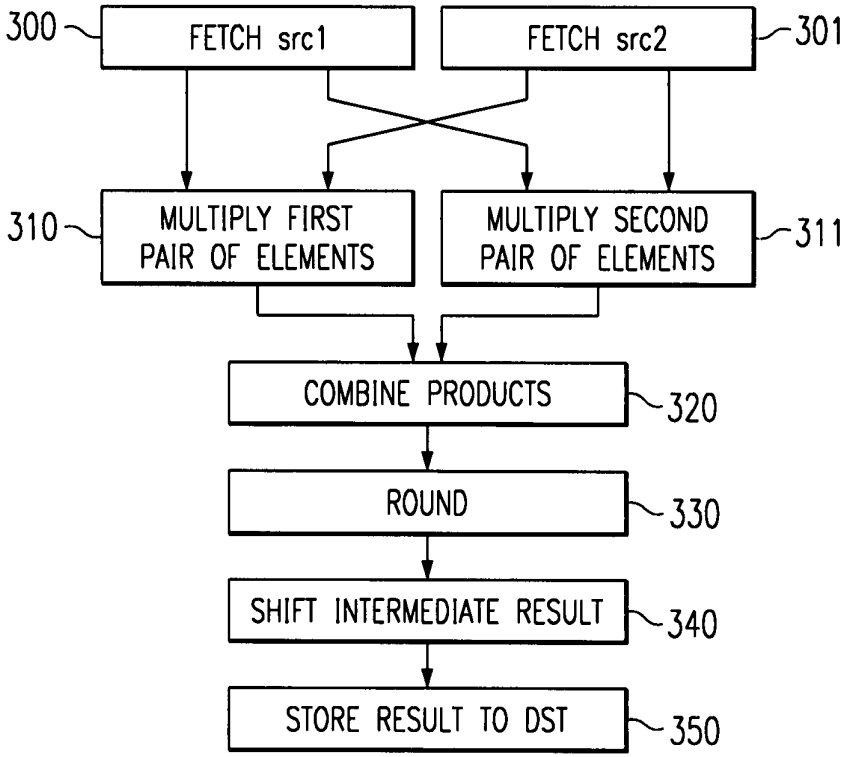


FIG. 3A

OPERATIONS ON THE .M UNIT

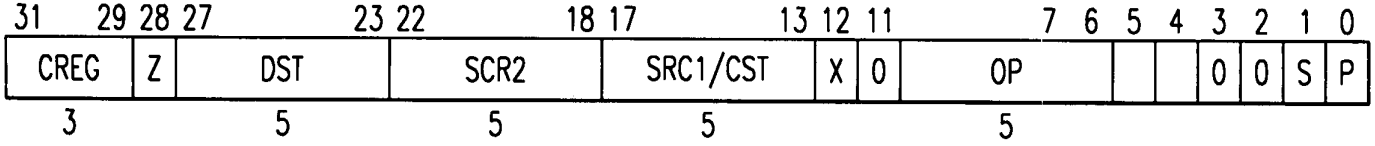


FIG. 3B

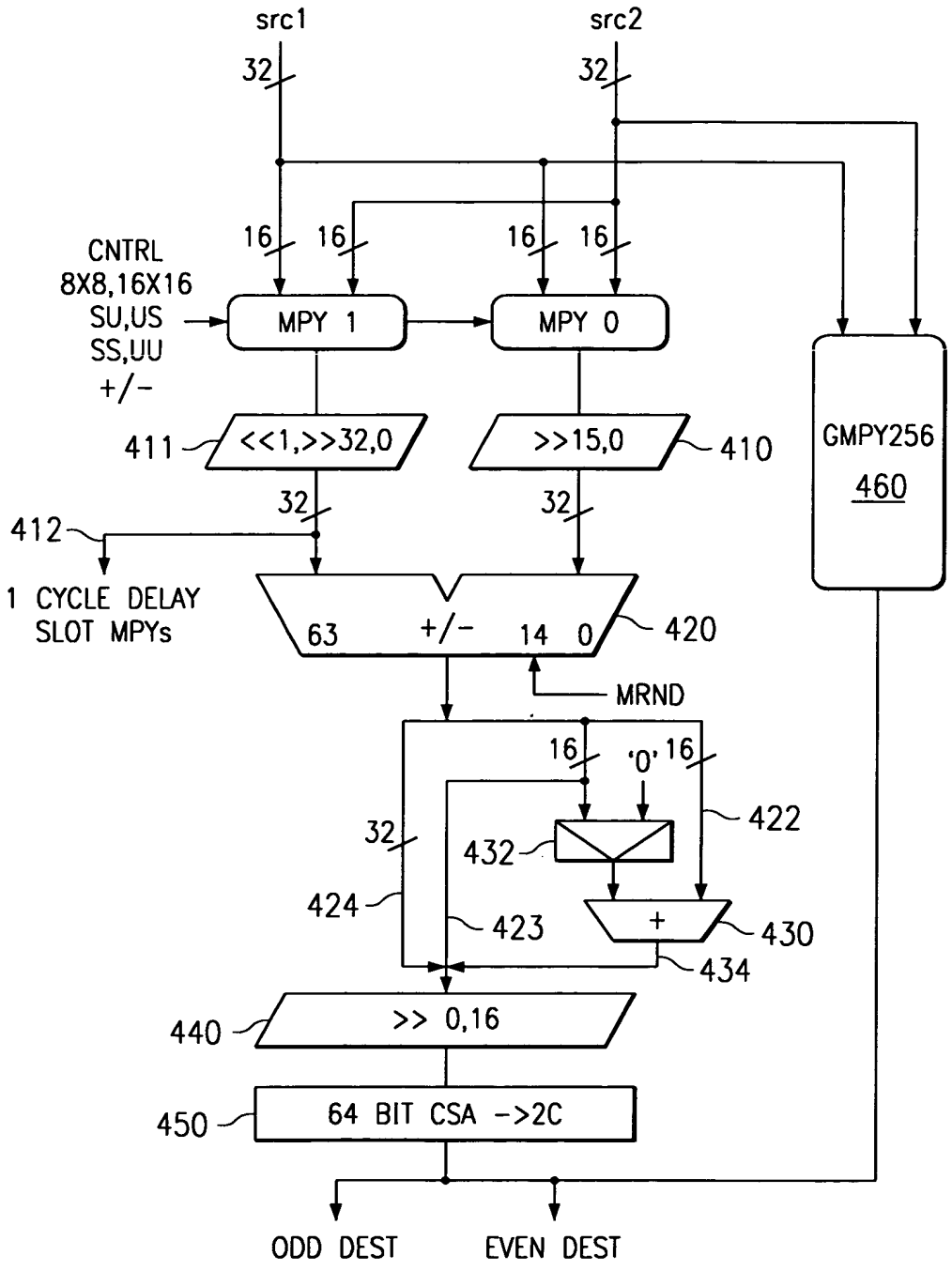

src1
src2
32
32
16
16
16
16
CNTRL
8X8,16X16
SU,US
SS,UU
+/-
MPY 1
MPY 0
GMPY256
460
411
<<1,>>32,0
>>15,0
410
32
32
412
1 CYCLE DELAY
SLOT MPYs
63
+/-
14
0
420
MRND
16
'0'
16
422
32
432
424
423
+
430
434
440
>> 0,16
450
64 BIT CSA ->2C
ODD DEST
EVEN DEST

FIG. 4

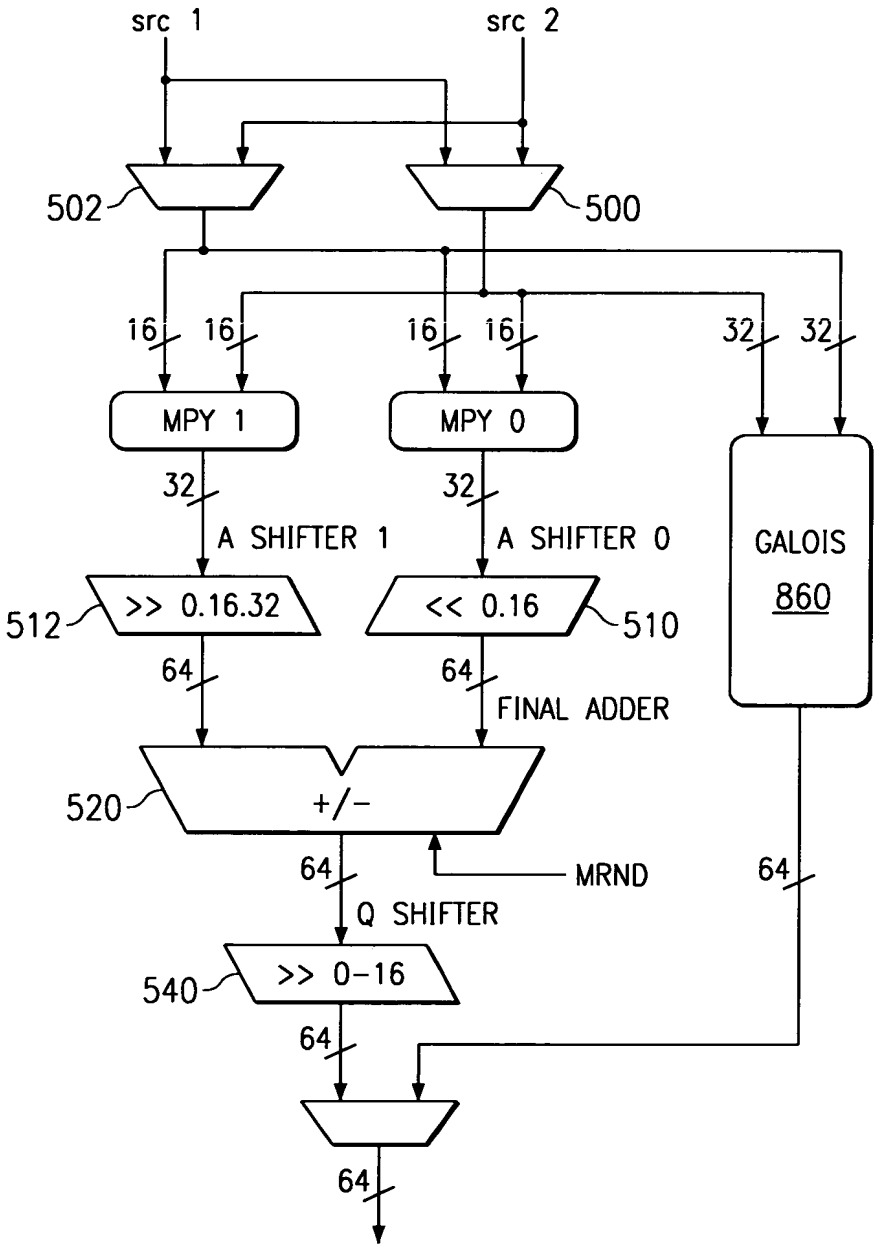

src 1
src 2
502
500
16
16
16
16
32
32
MPY 1
MPY 0
32
32
A SHIFTER 1
A SHIFTER 0
GALOIS
860
512
>> 0.16.32
<< 0.16
510
64
64
FINAL ADDER
520
+/-
64
MRND
64
Q SHIFTER
540
>> 0-16
64
64

FIG. 5

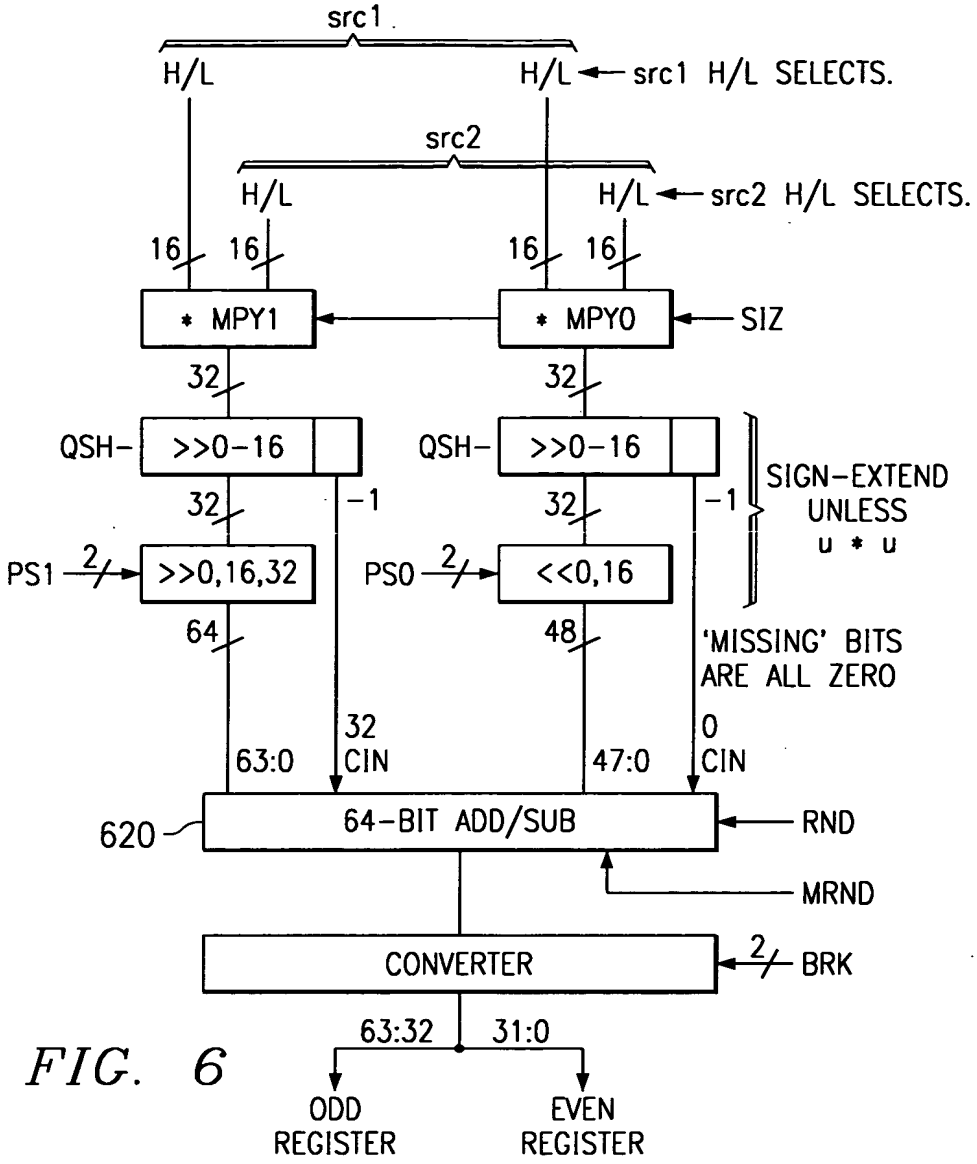

src1
H/L
H/L
src1 H/L SELECTS.
src2
H/L
H/L
src2 H/L SELECTS.
16
16
16
16
* MPY1
* MPY0
SIZ
32
32
QSH-
>>0-16
QSH-
>>0-16
SIGN-EXTEND
UNLESS
u * u
32
-1
32
-1
PS1
2
>>0,16,32
PS0
2
<<0,16
64
48
'MISSING' BITS
ARE ALL ZERO
63:0
32
CIN
47:0
0
CIN
620
64-BIT ADD/SUB
RND
MRND
CONVERTER
2
BRK
63:32
31:0
ODD
REGISTER
EVEN
REGISTER

FIG. 6

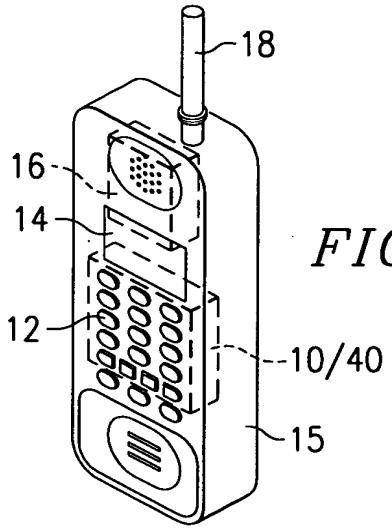

18
16
14
12
10/40
15

FIG. 7